The Mass of the Central Black Hole in the Seyfert Galaxy NGC 3783

Christopher A. Onken & Bradley M. Peterson

Department of Astronomy, The Ohio State University, Columbus, OH 43210

onken, peterson@astronomy.ohio-state.edu

ABSTRACT

Improved analysis of ultraviolet and optical monitoring data on the Seyfert 1 galaxy NGC 3783 provides evidence for the existence of a supermassive, $(8.7\pm1.1)\times10^6~\rm M_{\odot}$, black hole in this galaxy. By using recalibrated spectra from the *International Ultraviolet Explorer* satellite and ground-based optical data, as well as refined techniques of reverberation mapping analysis, we have reduced the statistical uncertainties in the response of the emission lines to variations in the ionizing continuum. The different time lags in the emission line responses indicate a stratification in the ionization structure of the broad-line region and are consistent with the virial relationship suggested by the analysis of similar active galaxies.

Subject headings: galaxies: active — galaxies: individual (NGC 3783) — galaxies: nuclei — galaxies: Seyfert — ultraviolet: galaxies

1. INTRODUCTION

The primary model that has emerged over the last few decades for the radiation source of an active galactic nucleus (AGN) is accretion onto a supermassive black hole (SMBH). Variations in the ionizing continuum have been seen to influence the strength of emission lines arising from the broad-line region (BLR). Cross-correlation of the continuum and emission line light curves yields a characteristic time lag with which each line echoes the continuum fluctuations (Blandford & McKee 1982). This reverberation mapping technique has been used to measure the sizes of BLRs for a growing number of AGNs (see Wandel, Peterson, & Malkan 1999; Kaspi et al. 2000).

In addition to the BLR size, reverberation analysis can be used to estimate the mass of the SMBH. The reliability of these reverberation masses has been debated because of the uncertainty surrounding the common assumption of virialized BLR gas motions. The detailed kinematics and structure of the BLR is an unresolved issue and could lead to systematic errors on the order of a factor of a few or perhaps more (see

Fromerth & Melia 2001; Krolik 2001). However, the excellent agreement between the black hole mass-bulge velocity dispersion (M- σ) relationships for reverberation-mapped AGNs and normal galaxies (Ferrarese et al. 2001) suggests the systematic discrepancy introduced in reverberation mapping is small. Additionally, AGNs for which multiple emission lines have been mapped (NGC 5548, 3C 390.3, NGC 7469) show an inverse relationship between the time lag and the emission line width, consistent with the gas motions being dominated by the gravity of the SMBH (Peterson & Wandel 1999, 2000).

A combined optical and UV monitoring campaign was carried out on the Seyfert 1 galaxy NGC 3783 by the *International AGN Watch* consortium, making use of the *International Ultraviolet Explorer (IUE)*, the *Hubble Space Telescope*, and a host of ground-based observatories over a period of 7 months in 1991-1992. The results of that work have been published by Reichert et al. (1994), Stirpe et al. (1994), and Alloin et al. (1995). Compared to the consortium's earlier study of another Seyfert galaxy, NGC 5548 (see Clavel et al. 1991; Peterson et al. 1991; Dietrich et al. 1993), the

emission-line time lags were relatively uncertain, too poorly constrained in fact to reveal any possible virial relationship between line width and time lag.

The continued rarity of such campaigns, however, makes it clearly desirable to learn as much as possible from the extant datasets. This provides the motivation for our current study.

With the release of an updated processing pipeline and calibration for *IUE* data, the possibility arose to re-analyze the spectra of NGC 3783 and reduce the uncertainties of the emission-line time lags. In addition, the techniques of reverberation analysis have matured in the years since the original data were published, now providing more consistent methodology for cross-correlation and error estimation. Thus, we have re-examined the data, deriving more precise results for the emission line reverberation and revising the previous estimates of the reverberation mass.

The next section describes the observations and how the data were reduced (§2). In §3 we explain the analysis procedure and give our cross-correlation results. Section 4 discusses the results and the SMBH mass determination, and our conclusions are summarized in §5.

2. OBSERVATIONS AND DATA RE-DUCTION

2.1. UV Data

The *IUE* observations of NGC 3783 were conducted in 69 separate epochs, with two sampling rates. The first interval (of 45 epochs) had an average spacing of 4.0 days, while the final 24 epochs observed the AGN with an average spacing of 2.0 days. A more complete description of the UV observing program is provided by Reichert et al. (1994).

In addition to the original *IUE* Spectral Image Processing System (IUESIPS), Reichert et al. (1994) used a Gaussian extraction method (GEX; see Clavel et al. 1991) to obtain the spectra of NGC 3783. After the original data had been taken, a new standard processing pipeline was introduced. The main advantages of the New Spectral Image Processing System (NEWSIPS; Nichols et al. 1993) with respect to the older IUESIPS are the improved photometric accuracy and higher

S/N of the spectra; these characteristics have been achieved by introducing a new method of raw data science registration (which both reduces the fixed pattern noise in the images and improves the photometric corrections), a weighted slit extraction method, and re-derived absolute flux calibrations. NEWSIPS also includes corrections for non-linearity that might have affected previous studies. Overall, NEWSIPS-processed spectra show average S/N increases of 10–50% over IUESIPS data (Nichols & Linsky 1996).

We retrieved the NEWSIPS-extracted short wavelength prime camera (SWP; Harris & Sonneborn 1987) spectra from the *IUE Final Archive*¹. While Reichert et al. (1994) analyzed data from both the SWP and long wavelength prime cameras, we have limited our study to observations made with the SWP instrument, which has a wavelength range of 1150–1975 Å in the low-dispersion mode (Newmark et al. 1992).

Each spectrum was examined and several types of problems led to spectra being removed from further consideration: (1) low S/N (determined by inspection, but corresponding roughly to a continuum S/N limit of 10); (2) unusual spectral features (possibly due to grazing cosmic-ray impacts); (3) short exposure times (when longerexposure data were available from the same epoch and the line flux data were discrepant). Some anomalous features were checked against the GEX frames, from which cosmic ray impacts were carefully removed. Problems with the spectra were ignored in cases where they occurred in spectral regions outside those used in computing line and continuum fluxes. Continuum and emission line flux values were measured using the wavelengths limits listed in Table 1.

The continuum was defined by a linear fit through four spectral regions (1340–1370 Å, 1440–1480 Å, 1710–1730 Å, and 1840–1860 Å). An alternate fit through the first three of these regions produced consistent results. Wavelength-specific problems in two cases (SWP 45150, SWP 45206) led us to substitute the alternate continuum fit for these spectra.

We have estimated the flux uncertainties by considering instances in which multiple independent exposures were obtained at the same epoch

¹http://ines.laeff.esa.es/ines/

(i.e., a single pointing toward the target). Flux ratios between pairs of points within each epoch were calculated and the standard deviation of the flux ratios was taken as the fractional uncertainty for all observations. This analysis was conducted independently for each emission line and continuum band. As noted above, however, highly discrepant data were removed prior to this analysis. In spite of our use of an edited dataset, the large number of data pairs contributing to our error estimate (about 35) justifies our continued use of these values in the analysis. The final UV dataset is given in Table 2 for the continuum measurements and in Table 3 for the emission lines.

The velocity width desired for the reverberation mass calculation is related to the emission line velocity full width at half-maximum (V_{FWHM}) by

$$\sigma = \frac{\sqrt{3}V_{FWHM}}{2},\tag{1}$$

where the factor of $\sqrt{3}/2$ is used to maintain consistency with previous work (e.g., Wandel et al. 1999; Kaspi et al. 2000) and assumes isotropic gas motion.

An RMS spectrum was created from the data to isolate the varying parts of the emission lines and it was from this spectrum that the primary V_{FWHM} values for the emission lines were measured. The V_{FWHM} data were constructed by considering the extreme flux values within the continuum regions, fitting two continuum slopes (to the highest flux levels and lowest flux levels), and averaging the measures of V_{FWHM} derived from the two continuum determinations. Finally, the data were converted to their rest-frame widths using $z = 0.009730 \pm 0.000007$ (Theureau et al. 1998). Previous work examining the difference between using the mean and RMS spectra have not produced significantly different results (e.g., Kaspi et al. 2000), but in principle the RMS spectrum should better trace the gas with which we are concerned. We have measured line widths from both spectra (Figure 1) and report the results of our mean and RMS V_{FWHM}^{rest} measurements in Table 4. Geocoronal Ly α emission blended into the Ly α spectral region precludes V_{FWHM} measurement for this line and thus also prevents Ly α contribution to the mass determination, but crosscorrelation analysis is still feasible by excluding the contaminated portion of the spectrum (see Table 1).

2.2. Optical Data

Ground-based optical spectroscopy was conducted over the same time period as the *IUE* observations. The optical data analyzed here were retrieved from the *AGN Watch* website², and details of the observations are described by Stirpe et al. (1994). We have limited our investigation to the data gathered at the Cerro Tololo Inter-American Observatory (CTIO) 1.0 m telescope to ensure the most homogeneous dataset possible for the cross-correlation analysis and for the construction of the mean and RMS spectra. Spectra that were excessively noisy or contained other anomalies were discarded from consideration, leaving 37 CTIO observations for further analysis.

Narrow spectral lines are assumed not to vary over the timescales these data are probing. Thus the individual spectra were scaled to a constant flux by using the spectral scaling technique of van Groningen & Wanders (1992). This method computes a smooth scaling function between the input spectrum and a reference (the mean spectrum in this case, shown in Figure 2) over a specified wavelength range. We scaled over the spectral region 4972–5150 A in order to span the redshifted [O III] $\lambda\lambda 4959$, 5007 emission lines and a suitable amount of continuum. We found that two iterations were required for full convergence. This reduced the fractional RMS scatter in the [O III] $\lambda 5007$ light curve (measured between 5028 and 5090 Å) to less than 2.5%. Additional iterations failed to produce any light curves with smaller scatter. The mean [O III] $\lambda 5007$ flux was normalized to 8.44×10^{-13} erg s⁻¹ cm⁻², the value derived by the careful analysis of Stirpe et al. (1994).

Following the calibration of the spectra, the H β line was measured between 4830 and 4985 Å (with the continuum set by a linear fit between 4800–4820 Å and 5130–5150 Å). The flux uncertainties were measured in the same way as for the UV data (§2.1), and the results are given in Table 5. Due to the smaller optical dataset, the flux errors for H β and the 5150 Å continuum rely on only seven data pairs. To be cautious, we have been more conservative in our estimation of the optical flux uncertainties. The method for measuring V_{FWHM}^{rest} was

²http://www.astronomy.ohio-state.edu/~agnwatch/

also applied to the optical data and yielded values of $(2.91\pm0.19)\times10^3~\rm km~s^{-1}$ for the RMS spectrum and $(2.65\pm0.02)\times10^3~\rm km~s^{-1}$ for the mean optical spectrum.

3. LIGHT CURVE ANALYSIS

In Table 6 we compare the sampling characteristics of our data with the previously published light curves. When we bin the data in each epoch, the variability parameters of the old and new UV datasets appear nearly identical. The "excess variance", F_{var} , represents the mean fractional variation of each dataset (see Rodrígues-Pascual et al. 1997); R_{max} is the ratio of maximum to minimum flux levels. The updated optical dataset is much more sparse than the previously published data because of our desire for the most homogeneous dataset possible.

Figure 3 shows the light curves for each of the UV and optical emission lines and continuum bands. Applying the techniques described by Peterson et al. (1998), we generated cross-correlation functions (CCFs) relating the various emission line light curves to the 1355 Å continuum flux. We report both peak (τ_{peak}) and centroid (τ_{cent}) cross-correlation lags. However, the reader should be warned that "lags" in the text will hereafter refer to centroids, unless otherwise noted, and that such lags do not represent a simple phase shift between the light curves.

As Koratkar & Gaskell (1991a) noted for NGC 3783 (and other reverberation-mapped AGNs), the choice of what threshold to use for the centroid calculation can significantly affect the resulting time lag. Figure 4 shows that some lines tend toward larger lags and others toward smaller values as the centroid becomes increasingly dominated by the peak value. For the interpolated CCF (ICCF; Gaskell & Peterson 1987; White & Peterson 1994), we experimented with different interpolation lengths and different thresholds for the calculation of the lag centroid. Our subsequent analysis uses an interpolation unit of 0.1 days in both light curves (interpolating one dataset at a time, with the resulting lags averaged) and a centroid threshold of 80% of the peak correlation coefficient.

In addition to the ICCF, we calculated the discrete correlation function (DCF; Edelson & Kro-

lik 1988) for each continuum band and emission line. While the DCF, which requires binning of the data, is more likely to miss a real correlation than the ICCF under poor sampling conditions, it is also less likely to introduce a spurious relationship (White & Peterson 1994). Gaskell (1994) notes that the DCF also relies on interpolation, but does so in the correlation function, rather than the original time series. The ICCF and DCF methods have been compared by various authors (e.g., White & Peterson 1994; Litchfield, Robson, & Hughes 1995) and typically yield similar results.

To assess the uncertainties in the time lag calculations, we used the Monte Carlo (MC) methods of Peterson et al. (1998). This technique for modelindependent error estimation consists of two components, each testing for a separate contribution to the cross-correlation uncertainty. To account for the uncertainty in an individual flux measurement, each data point in the light curve is altered by a random Gaussian deviation that corresponds to the quoted flux error (calculated by the method described in §2.1). The result of many such realizations, referred to as "flux randomization" (FR), should yield average values equal to the original data with standard deviations given by the original uncertainties. Secondly, the effects of nonuniform temporal sampling of the AGN fluctuations are investigated with "random subset selection" (RSS). Given a sample of N observations, N data points are randomly chosen from the set (ignoring whether they have been chosen previously). While DCF and ZDCF (Alexander 1997) analyses can weight multiply-selected data, the ICCF (which we use for our MC calculations) does not consider the flux uncertainties and simply excludes the redundant data points. Ignoring these data reduces the set by $\sim N/e$ on average and so should yield a wider range of peak lags from the ICCF. Repeated MC realizations (at least 10³ in the present work; combining the FR/RSS methods for each calculation) are used to create a cross-correlation peak distribution (CCPD; Maoz & Netzer 1989), which provides an empirical measurement of the uncertainties for both τ_{cent} and τ_{peak} .

3.1. Emission Lines

The light curves for each emission line (He II $\lambda 1640 + O$ III] $\lambda 1663$, Si IV $\lambda 1400 + O$ IV] $\lambda 1402$,

Ly α , C IV $\lambda 1549$, Si III] $\lambda 1892 + C$ III] $\lambda 1909$, and H β) were run through the ICCF, DCF, and FR/RSS programs, using the 1355 Å continuum data as the "driving" light curve. The CCFs and CCPDs are shown for each emission line in the panels of Figure 5. The CCPDs are shown to give a graphical indication of the empirical uncertainties and are scaled to the maximum value in each panel.

Each of the emission lines was very well correlated with the continuum flux. The poorest correlation with the continuum was found for Si III] $\lambda 1892 + \text{C III}$] $\lambda 1909$, which was found to have a peak ICCF value of $r_{max}{=}0.354$ (i.e., a probability of arising from an uncorrelated parent population of roughly < 0.001) and we limited the range of computation for this line to ± 16 days to avoid aliasing. Table 7 summarizes the previous data and our new results.

Our results for the UV emission lines are generally in agreement with those of Reichert et al. (1994). It should be noted, however, that the peak and centroid lags calculated by Reichert et al. (1994) and Stirpe et al. (1994) used the 1460 Å continuum as the driving light curve. The results quoted here are consistent with those derived from the recalibrated data with the continuum centered at 1460 Å rather than at 1355 Å. Because of the large uncertainties assigned to previous lag values, most of our NEWSIPS lags are within 1- σ of the old data. The exceptions are Si III] $\lambda 1892 + C$ III] λ 1909, for which the IUESIPS-based data failed to produce any lag at all, and H β . The GEX extraction method yielded a peak lag for Si III] $\lambda 1892 +$ C III] $\lambda 1909$ similar to what we found, but a centroid lag approximately 2- σ larger than the current result. Our centroid lag for $H\beta$ was only slightly more than 1- σ greater than the previous value.

The significant discrepancy between our H β results and those of Wandel et al. (1999, $4.5^{+3.6}_{-3.1}$ days) arises from the double-peaked nature of the CCF. The centroid lag calculated for the 5150 Å continuum-H β CCF is based on fewer points than the 1355 Å continuum-H β lag, and gives precedence to the peak at smaller lags. We have greater confidence in the results that use the UV continuum data, and those results closely match the UV-H β correlation found by Stirpe et al. (1994).

3.2. Continuum

Strong evidence for wavelength-dependent continuum lags has been found for only two AGNs (NGC 7469 and Akn 564), but appears to be consistent with simple accretion disk models that predict $\tau \propto \lambda^{4/3}$ (see Wanders et al. 1997; Collier et al. 1998, 2001). However, Korista & Goad (2001) note that diffuse emission from broad-line clouds can produce a similar wavelength dependence, so the origin of this phenomenon is not clear.

The large uncertainties still present in the NEWSIPS continuum lags prevent us from reasonably testing the τ - λ relationship because the continuum-continuum time lags we find are not statistically significant (see Table 7).

4. IMPLICATIONS FOR THE BLR AND THE SMBH

As the tabular data indicate, the expected pattern of more highly ionized lines having smaller time lags (i.e., originating closer to the ionization source) is reconfirmed by our analysis.

Figure 6 plots $V_{FWHM}^{rest}(RMS)$ versus τ_{cent}^{rest} for the five emission lines we measured. The virial assumption predicts a slope of -0.5 (in log-log space). Deviation from this relationship would contradict our model, but agreement with the predicted slope cannot rule out other dynamical possibilites (see Krolik 2001, and references therein).

The statistical problem of fitting to intrinsically scattered data with heteroscedastic errors has been addressed with computational methods by Akritas & Bershady (1996). However, our data has the additional difficulty of asymmetric errors in the lags. To account for the asymmetric time lag uncertainties we first used the larger of the two lag errors and then assessed in which direction the data points differed from the regression. We recalculated the fit using the errors toward the previous regression and confirmed that those were the appropriate choices in the final fit. The slope of the $V_{FWHM}^{rest}(RMS)$ - τ_{cent}^{rest} relation derived by the regression software³ was -0.450 ± 0.070 , consistent with our expectations for a virial relationship (irrespective of the specific multiplicative factor relating the line widths and V_{FWHM} values). Hence, we fixed the slope at -0.5 and calculated the mass

³available at http://www.astro.wisc.edu/~mab/archive/stats/stats.html

independently for each emission line, applying our previously stated assumption of isotropic BLR gas motion and inserting the appropriate rest-frame values into the following equation:

$$M = \frac{3 \ c \ \tau \ V_{FWHM}^2}{4 \ G}.$$
 (2)

Weighting the data by the uncertainty in the direction of the mean (since the lag errors are still asymmetric) yields an average SMBH mass of $(8.7\pm1.1)\times10^6~\mathrm{M}_\odot$.

Previous work with IUE archival data having much poorer temporal resolution measured a much larger C IV $\lambda 1549$ time lag and derived a mass of $7.3^{+3.5}_{-3.6} \times 10^7 \mathrm{M}_{\odot}$ (Koratkar & Gaskell 1991a,b). Wandel et al. (1999) calculated the ${\rm H}\beta$ lag with respect to the 5100 Å continuum from the light curves of Stirpe et al. (1994) and then used the RMS velocity width to estimate a mass of $1.1^{+1.1}_{-1.0} \times 10^7 \text{ M}_{\odot}$. Applying this method to our version of the optical data yields an SMBH mass of $6.2^{+4.7}_{-6.1} \times 10^6 M_{\odot}$, within the 1- σ error bars for our mass measurement with the full dataset. Fromerth & Melia (2000) employed a different means of measuring the velocity dispersion from the data of Reichert et al. (1994) and derived masses of $1.6^{+0.8}_{-0.4}\times10^7~\rm M_\odot$ and $1.3^{+0.8}_{-0.5}\times10^7~\rm M_\odot$ from $\rm Ly\alpha$ and C IV $\lambda 1549$, respectively. Various disk accretion models predicting a SMBH mass in the range of $2.0-7.0\times10^7$ M_{\odot} were cited by Alloin et al. (1995). However, they note the simple nature of these spatially thin, optically thick disk models and the potential for a large discrepancy from the true SMBH mass.

5. SUMMARY

We have conducted reverberation mapping analysis on recalibrated IUE and ground-based optical observations of the Seyfert 1 galaxy NGC 3783 with the goal of revising the mass estimate for the central SMBH. The NEWSIPS spectra confirm the existence of varying time lags for emission lines of different ionization potentials and provide a better constraint on the SMBH mass under the assumption of virial gas motion. The emission line time lags vary from 1.3 to 10.4 days, and analysis of peak and centroid time lags yield similar results for each line. Our mass determination revises the previous values to a mass of $(8.7\pm1.1)\times10^6~\mathrm{M}_\odot$.

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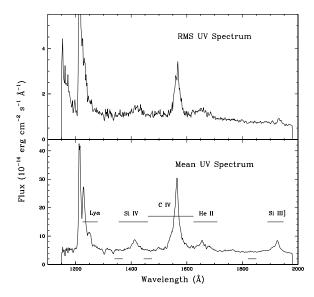


Fig. 1.— *Top*: RMS UV spectrum. *Bottom*: Mean UV spectrum. Wavelengths delineated above the spectrum indicate emission-line ranges; those below the spectrum mark ranges of continuum flux measurement.

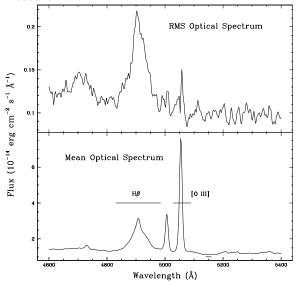


Fig. 2.— *Top*: RMS optical spectrum. *Bottom*: Mean optical spectrum. Wavelength indications as in Fig. 1.

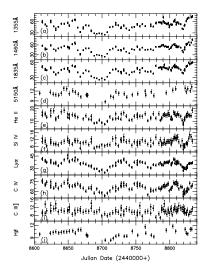


Fig. 3.— UV and optical light curves: (a) 1355 Å continuum, (b) 1460 Å continuum, (c) 1835 Å continuum, (d) 5150 Å continuum, (e) He II λ 1640 + O III] λ 1663, (f) Si IV λ 1400 + O IV] λ 1402, (g) Ly α , (h) C IV λ 1549, (i) Si III] λ 1892 + C III] λ 1909, and (j) H β . Continuum fluxes are in units of 10^{-15} ergs cm⁻² s⁻¹ Å⁻¹. Emission line fluxes are given in units of 10^{-13} ergs cm⁻² s⁻¹.

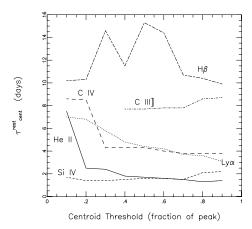


Fig. 4.— Rest-frame centroid time lag versus threshold level for centroid determination (as a fraction of the peak correlation coefficient). The data plotted are for He II $\lambda 1640 + {\rm O~III}]~\lambda 1663$ (solid), Si IV $\lambda 1400 + {\rm O~IV}]~\lambda 1402$ (short dashed), Ly α (dotted), C IV $\lambda 1549$ (long dashed), Si III] $\lambda 1892 + {\rm C~III}]~\lambda 1909$ (dot-short dashed), and H β (dot-long dashed).

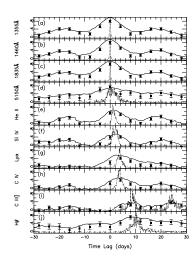


Fig. 5.— Results of cross-correlation of the 1355 Å continuum with (a) itself; (b) 1460 Å continuum; (c) 1835 Å continuum; (d) 5150 Å continuum; (e) He II λ 1640 + O III] λ 1663; (f) Si IV λ 1400 + O IV] λ 1402; (g) Ly α ; (h) C IV λ 1549; (i) Si III] λ 1892 + C III] λ 1909; (j) H β . The solid lines show the ICCFs, the data points are the DCFs, and the dashed lines represent the CCPDs. Note that the y-axis scale for the CCPDs is the fraction of MC

realizations producing a centroid of that lag value and is scaled to the maximum in each panel.

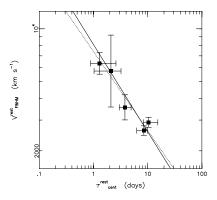


Fig. 6.— Rest-frame velocity FWHM versus rest-frame centroid time lag for the five emission lines we have measured. The dashed line is the best fit to the data; the solid line is the best fit with fixed slope of -0.5.

TABLE 1
WAVELENGTH LIMITS

Line/Band	Wavelength Range (Å)
1355 Å continuum	1340-1370
1460 Å continuum	1445 – 1475
1835 Å continuum	1820 – 1850
5150 Å continuum	5140 – 5160
$\text{Ly}\alpha$	1225 – 1280
Si IV $\lambda 1400 + O$ IV] $\lambda 1402$	1355 – 1460
C IV $\lambda 1549$	1460 – 1624
He II $\lambda 1640 + O$ III] $\lambda 1663$	1624 – 1710
Si III] $\lambda 1892 + C$ III] $\lambda 1909$	1890 – 1948
$^{\mathrm{H}eta}$	4830-4985

 $\begin{array}{c} \text{Table 2} \\ \text{UV Continuum Flux Data}^{\text{a}} \end{array}$

Image	Julian Date			
Name	(2,440,000+)	$F(\lambda 1355)$	$F(\lambda 1460)$	$F(\lambda 1835)$
SWP 43438	8611.948	60.811±2.432	57.899 ± 2.142	52.244 ± 1.776
SWP 43439	8612.031	57.353 ± 2.294	57.395 ± 2.124 57.395 ± 2.124	52.244 ± 1.770 50.582 ± 1.720
SWP 43472	8615.949	51.984 ± 2.079	57.395 ± 2.124 50.204 ± 1.858	47.259 ± 1.607
SWP 43473	8616.029	51.984 ± 2.079 51.979 ± 2.079	45.407 ± 1.680	45.024 ± 1.531
SWP 43485	8618.118	47.391 ± 1.896	47.043 ± 1.741	44.713 ± 1.520
SWP 43539	8624.202	60.846 ± 2.434	58.123 ± 2.151	48.605 ± 1.653
SWP 43540	8624.294	61.371 ± 2.455	58.123 ± 2.151 58.173 ± 2.152	50.031 ± 1.701
SWP 43541	8624.385	58.033 ± 2.321	59.779 ± 2.212	48.735 ± 1.657
SWP 43557	8628.595	46.814 ± 1.873	47.146 ± 1.744	40.850 ± 1.389
SWP 43587	8631.680	36.975 ± 1.479	47.140 ± 1.744 43.277 ± 1.601	40.830 ± 1.369 37.136 ± 1.263
SWP 43588	8631.765	41.661 ± 1.666	43.277 ± 1.001 42.163 ± 1.560	35.594 ± 1.210
SWP 43636				
SWP 43676	8635.688 8639.862	45.680 ± 1.827 53.819 ± 2.153	49.405 ± 1.828	39.628 ± 1.347 45.264 ± 1.539
			52.490 ± 1.942	45.204 ± 1.613 47.434 ± 1.613
SWP 43716 SWP 43871	8643.948	53.593 ± 2.144	56.866 ± 2.104 55.327 ± 2.047	48.963 ± 1.665
	8649.367	56.758 ± 2.270	53.527 ± 2.047 52.634 ± 1.947	
SWP 43872	8649.454	55.680 ± 2.227		46.580 ± 1.584
SWP 43894	8651.756	49.667 ± 1.987	48.990 ± 1.813	43.264 ± 1.471
SWP 43895	8651.855	48.352 ± 1.934	52.337 ± 1.936	41.435 ± 1.409
SWP 43921	8656.130	61.961 ± 2.478	62.436 ± 2.310	53.664 ± 1.825
SWP 43945	8660.040	64.188 ± 2.568	67.311 ± 2.491	51.531 ± 1.752
SWP 43946	8660.121	63.656 ± 2.546	63.607 ± 2.353	52.300 ± 1.778
SWP 43962	8664.048	43.983 ± 1.759	43.716 ± 1.617	40.467 ± 1.376
SWP 43995	8668.022	32.648 ± 1.306	30.813 ± 1.140	31.508 ± 1.071
SWP 43996	8668.115	31.491 ± 1.260	32.760 ± 1.212	32.328 ± 1.099
SWP 44020	8672.106	40.887 ± 1.635	44.671 ± 1.653	38.755 ± 1.318
SWP 44048	8676.272	44.897 ± 1.796	49.399 ± 1.828	44.148 ± 1.501
SWP 44072	8680.310	50.035 ± 2.001	49.829 ± 1.844	42.224 ± 1.436
SWP 44099	8684.199	49.072 ± 1.963	38.191 ± 1.413	33.057 ± 1.124
SWP 44100	8684.275	36.331 ± 1.453	39.336 ± 1.455	32.631 ± 1.109
SWP 44126	8688.228	33.912 ± 1.356	27.773 ± 1.028	30.118 ± 1.024
SWP 44149	8692.216	28.542 ± 1.142	30.410 ± 1.125	28.579 ± 0.972
SWP 44176	8695.910	27.667 ± 1.107	29.197 ± 1.080	26.109 ± 0.888
SWP 44189	8699.713	28.465 ± 1.139	27.397 ± 1.014	29.131 ± 0.990
SWP 44208	8703.723	27.708 ± 1.108	24.374 ± 0.902	26.402 ± 0.898
SWP 44237	8707.871	25.508 ± 1.020	33.736 ± 1.248	31.970 ± 1.087
SWP 44267	8711.731	32.335 ± 1.293	45.001 ± 1.665	39.240 ± 1.334
SWP 44307	8715.612	44.933 ± 1.797	49.245 ± 1.822	45.781 ± 1.557
SWP 44349	8719.932	46.150 ± 1.846	55.077 ± 2.038	47.230 ± 1.606
SWP 44350	8720.020	56.100 ± 2.244	54.303 ± 2.009	46.392 ± 1.577
SWP 44381	8724.004	50.768 ± 2.031	44.383 ± 1.642	42.641 ± 1.450
SWP 44408	8727.967	49.801 ± 1.992	44.960 ± 1.664	41.495 ± 1.411

Table 2—Continued

Imaga	Julian Date			
$\begin{array}{c} { m Image} \\ { m Name} \end{array}$	(2,440,000+)	$F(\lambda 1355)$	$F(\lambda 1460)$	$F(\lambda 1835)$
- Tvaille	(2,440,000)	T (X1000)	Т (Л1400)	T (X1030)
SWP 44409	8728.068	$42.096{\pm}1.684$	$43.414{\pm}1.606$	$38.242{\pm}1.300$
SWP 44410	8728.168	45.123 ± 1.805	43.196 ± 1.598	40.839 ± 1.389
SWP 44434	8731.946	43.086 ± 1.723	49.410 ± 1.828	46.087 ± 1.567
SWP 44435	8732.205	49.680 ± 1.987	48.115 ± 1.780	43.598 ± 1.482
SWP 44461	8735.946	48.231 ± 1.929	$39.557 {\pm} 1.464$	38.632 ± 1.313
SWP 44486	8739.990	41.475 ± 1.659	$35.484{\pm}1.313$	35.752 ± 1.216
SWP 44492	8744.129	37.318 ± 1.493	47.640 ± 1.763	40.569 ± 1.379
SWP 44581	8747.874	$44.276{\pm}1.771$	$45.235{\pm}1.674$	41.850 ± 1.423
SWP 44627	8751.845	45.411 ± 1.816	55.741 ± 2.062	47.994 ± 1.632
SWP 44628	8751.950	51.002 ± 2.040	53.867 ± 1.993	48.992 ± 1.666
SWP 44629	8752.056	53.204 ± 2.128	54.219 ± 2.006	47.375 ± 1.611
SWP 44659	8755.872	52.803 ± 2.112	$46.318{\pm}1.714$	$45.237{\pm}1.538$
SWP 44660	8755.949	47.175 ± 1.887	$44.828{\pm}1.659$	40.003 ± 1.360
SWP 44682	8759.702	47.448 ± 1.898	51.934 ± 1.922	$48.939{\pm}1.664$
SWP 44731	8763.559	52.863 ± 2.115	$44.915{\pm}1.662$	$42.596{\pm}1.448$
SWP 44760	8767.535	47.646 ± 1.906	45.992 ± 1.702	41.306 ± 1.404
SWP 44803	8771.689	47.353 ± 1.894	47.380 ± 1.753	41.833 ± 1.422
SWP 44804	8771.772	52.010 ± 2.080	$46.543{\pm}1.722$	$42.305{\pm}1.438$
SWP 44830	8775.633	46.666 ± 1.867	$44.004{\pm}1.628$	$38.184{\pm}1.298$
SWP 44873	8779.607	54.715 ± 2.189	54.094 ± 2.001	53.352 ± 1.814
SWP 44907	8783.948	56.424 ± 2.257	54.764 ± 2.026	$49.191{\pm}1.672$
SWP 44918	8785.949	57.362 ± 2.294	55.285 ± 2.046	50.312 ± 1.711
SWP 44921	8787.786	57.131 ± 2.285	57.471 ± 2.126	$49.797 {\pm} 1.693$
SWP 44922	8787.864	56.597 ± 2.264	59.267 ± 2.193	$46.567{\pm}1.583$
SWP 44935	8790.113	54.404 ± 2.176	60.190 ± 2.227	50.947 ± 1.732
SWP 44949	8791.769	60.256 ± 2.410	55.655 ± 2.059	49.797 ± 1.693
SWP 44950	8791.857	70.247 ± 2.810	55.465 ± 2.052	55.578 ± 1.890
SWP 44964	8793.963	57.656 ± 2.306	56.226 ± 2.080	48.742 ± 1.657
SWP 44974	8795.768	56.318 ± 2.253	53.796 ± 1.990	48.098 ± 1.635
SWP 44992	8797.448	54.836 ± 2.193	53.977 ± 1.997	46.297 ± 1.574
SWP 44993	8797.538	52.793 ± 2.112	54.654 ± 2.022	$46.258{\pm}1.573$
SWP 45010	8799.460	54.291 ± 2.172	47.346 ± 1.752	50.123 ± 1.704
SWP 45024	8801.764	55.805 ± 2.232	50.718 ± 1.877	45.454 ± 1.545
SWP 45025	8801.887	49.579 ± 1.983	54.021 ± 1.999	43.688 ± 1.485
SWP 45026	8801.996	$44.498 {\pm} 1.780$	52.914 ± 1.958	$44.756{\pm}1.522$
SWP 45038	8803.458	52.139 ± 2.086	58.489 ± 2.164	49.668 ± 1.689
SWP 45052	8805.543	50.742 ± 2.030	61.563 ± 2.278	52.663 ± 1.791
SWP 45063	8807.520	51.641 ± 2.066	59.254 ± 2.192	50.333 ± 1.711
SWP 45064	8807.603	51.587 ± 2.063	62.612 ± 2.317	54.971 ± 1.869
SWP 45081	8809.509	59.759 ± 2.390	57.843 ± 2.140	50.158 ± 1.705
SWP 45082	8809.601	60.228 ± 2.409	53.138 ± 1.966	51.993 ± 1.768

Table 2—Continued

Image Name	Julian Date (2,440,000+)	$F(\lambda 1355)$	$F(\lambda 1460)$	$F(\lambda 1835)$
SWP 45096	8811.493	63.860 ± 2.554	55.395 ± 2.050	49.903 ± 1.697
SWP 45097	8811.595	56.369 ± 2.255	52.657 ± 1.948	50.072 ± 1.702
SWP 45106	8813.384	51.571 ± 2.063	54.998 ± 2.035	$47.810{\pm}1.626$
SWP 45118	8816.028	57.179 ± 2.287	51.851 ± 1.918	45.563 ± 1.549
SWP 45133	8818.024	57.305 ± 2.292	$42.796 {\pm} 1.583$	$39.882{\pm}1.356$
SWP 45150	8819.700	54.163 ± 2.167	37.296 ± 1.380	
SWP 45151	8819.800	52.810 ± 2.112	38.618 ± 1.429	$38.881 {\pm} 1.322$
SWP 45152	8819.904	41.373 ± 1.655	37.208 ± 1.377	38.237 ± 1.300
SWP 45167	8821.689	39.568 ± 1.583	45.306 ± 1.676	$44.545{\pm}1.515$
SWP 45168	8821.791	48.325 ± 1.933	47.669 ± 1.764	$46.635{\pm}1.586$
SWP 45169	8821.892	51.088 ± 2.044	53.395 ± 1.976	43.804 ± 1.489
SWP 45194	8824.353	50.394 ± 2.016	63.151 ± 2.337	52.316 ± 1.779
SWP 45195	8824.440	61.519 ± 2.461	60.085 ± 2.223	51.566 ± 1.753
SWP 45206	8825.701	60.748 ± 2.430	63.864 ± 2.363	
SWP 45207	8825.798	66.760 ± 2.670	62.632 ± 2.317	53.268 ± 1.811
SWP 45219	8827.904	67.384 ± 2.695	67.817 ± 2.509	59.430 ± 2.021
SWP 45227	8829.302	69.254 ± 2.770	59.651 ± 2.207	56.059 ± 1.906
SWP 45237	8831.317	70.910 ± 2.836	67.452 ± 2.496	58.335 ± 1.983
SWP 45246	8833.326	72.855 ± 2.914	76.033 ± 2.813	59.754 ± 2.032

 $^{^{\}rm a}{\rm Continuum~fluxes~are~given~in~units~of~}10^{-15}~{\rm ergs~cm^{-2}~s^{-1}~\AA^{-1}}.$

 $\begin{array}{c} \text{Table 3} \\ \text{UV Emission Line Flux Data}^{\text{a}} \end{array}$

Mange							
SWP 43438 8611.948 17.05±1.705 12.76±1.430 41.75±1.837 76.614±2.988 9.70±1.175 SWP 43439 8612.031 1.790±1.479 10.856±1.216 41.387±1.821 74.66±2.912 9.180±1.111 SWP 43472 8615.949 15.837±1.54 10.36±1.161 33.70±1.473 71.23±2.278 13.76±1.665 SWP 43438 8616.029 15.365±1.536 11.73±1.314 39.614±1.743 71.23±2.278 13.76±1.665 SWP 43438 8616.029 15.365±1.536 11.73±1.314 39.614±1.743 71.23±2.278 13.76±1.665 SWP 43439 8624.202 14.384±1.438 10.623±1.190 39.43±1.175 66.57±2.596 10.175±1.231 SWP 43539 8624.020 14.384±1.438 10.623±1.190 39.43±1.175 66.57±2.596 10.175±1.231 SWP 43549 8624.235 18.288±1.829 12.007±1.345 39.643±1.744 74.85±2.919 10.466±1.226 SWP 43547 8624.355 18.169±1.817 9.67±1.083 36.29±1.505 65.17±2.521 91 10.466±1.226 SWP 43547 8631.680 12.193±1.213 9.30±1.046 35.29±1.505 65.17±2.521 91 10.466±1.226 SWP 43587 8631.680 12.193±1.213 9.30±1.046 35.71±1.517 17.131±2.2781 13.007±1.683 SWP 43568 8631.680 12.123±1.123 9.30±1.086 35.71±1.517 17.131±2.2781 13.007±1.683 SWP 43568 8631.680 12.123±1.123 9.124±1.022 33.320±1.466 64.023±2.029 9.733±1.178 SWP 43578 8631.680 12.29±1.213 9.124±1.022 33.320±1.466 64.023±2.029 9.733±1.178 SWP 43578 8631.680 12.129±1.213 9.124±1.022 33.320±1.466 64.023±2.029 9.733±1.178 SWP 43578 8631.680 13.185±1.319 11.57±1.236 40.007±1.777 17.312±2.781 13.007±1.683 SWP 43871 8649.367 13.185±1.319 11.57±1.236 40.007±1.777 17.29±2.359 10.20±1.239 SWP 43871 8649.367 13.185±1.319 11.57±1.236 40.307±1.774 17.05±0.300 10.10±1.212 SWP 43894 8661.285 14.863±1.461 9.425±1.056 40.59±1.275 30.31±1.21.254 40.20±1.225 40.							Si III] $\lambda 1892$ +
SWP 43439 8612.031 14.790±1.479 10.856±1.261 41.387±1.821 74.662±2.912 9.180±1.111 SWP 43473 8616.029 15.837±1.584 13.68±1.161 38.70±1.704 96.938±2.716 13.78±2.787 12.25±2.778 13.76±1.665 SWP 43435 8618.118 13.188±1.319 85.0±0.050 37.39±1.644 73.775±2.877 13.76±1.665 SWP 43539 8624.202 14.38±1.438 10.623±1.109 36.81±1.725 66.575±2.506 10.175±1.231 SWP 43541 8624.865 18.288±1.829 12.007±1.345 39.63±1.744 74.85±2.919 10.466±1.266 SWP 43567 863.1660 12.129±1.23 3.26±1.045 37.35±1.645 66.57±2.262 11.489±1.330 SWP 43568 863.568 863.356.88 13.38±1.123 9.99±1.086 35.715±1.517 71.31±2.781 13.907±1.683 SWP 43676 863.9362 17.28±1.728 10.188±1.141 36.059±1.587 68.87±2.686 10.664±1.296 SWP 43871 8649.367 13.185±1.319 11.57±1.236 40.30±1.145 40.75±1.284 40.10±1.294 <td>Name</td> <td>(2,440,000+)</td> <td>O III] $\lambda 1663$</td> <td>O IV] $\lambda 1402$</td> <td>$Ly\alpha$</td> <td>C IV $\lambda 1549$</td> <td>C III] λ1909</td>	Name	(2,440,000+)	O III] $\lambda 1663$	O IV] $\lambda 1402$	$Ly\alpha$	C IV $\lambda 1549$	C III] λ1909
SWP 43439 8612.031 14.790±1.479 10.856±1.216 41.387±1.821 74.662±2.912 9.180±1.111 SWP 43473 8616.029 15.837±1.584 10.362±1.161 38.70±1.704 96.938±2.716 38.70±1.704 96.938±2.716 10.270±1.243 SWP 43435 8618.118 13.188±1.319 85.0±0.050 37.39±1.644 71.235±2.78 13.76±1.665 SWP 43539 8624.202 14.384±1.438 10.623±1.190 30.43±1.735 66.57±2.596 10.175±1.231 SWP 43561 8624.865 18.288±1.829 12.007±1.345 39.63±1.744 74.85±2.919 10.406±1.266 SWP 43567 863.1660 12.129±1.23 39.25±1.083 33.20±1.656 65.17±2.242 11.489±1.330 SWP 43676 863.9861 12.33±1.123 9.99±1.086 35.715±1.517 71.31±2.781 13.907±1.663 SWP 43716 8643.9467 13.185±1.319 11.57±4.1296 40.307±1.714 73.29±2.286 10.664±1.290 SWP 43891 8651.756 12.26±1.266 10.32±1.124 33.33±1.644 66.79±2.660 10.70±1.123	SWP 43438	8611.948	17.051 ± 1.705	12.769 ± 1.430	41.751 ± 1.837	76.614 ± 2.988	9.707 ± 1.175
SWP 43472 8616.029 15.365±1.536 11.73±1.134 38.06±1.704 69.633±2.716 8.96±1.085 SWP 43485 8618.118 13.18±1.319 8.55±0.959 37.369±1.644 73.775±2.877 10.270±1.243 SWP 43363 8624.294 17.992±1.799 9.900±1.109 36.819±1.620 69.660±2.717 13.212±1.539 SWP 43541 8624.294 17.992±1.799 9.900±1.109 36.819±1.620 69.660±2.717 13.212±1.539 SWP 43547 8625.355 18.169±1.817 9.672±1.083 36.29±1.535 65.172±2.519 10.466±1.266 SWP 43557 8625.595 18.169±1.817 9.672±1.083 36.29±1.535 65.172±2.519 10.466±1.266 SWP 43587 8625.595 11.233±1.123 9.572±1.083 36.29±1.535 65.172±2.525 11.489±1.390 SWP 43587 8633.680 11.233±1.123 9.572±1.083 37.53±1.644 68.48±2.671 11.600±1.414 SWP 43636 8635.688 13.352±1.338 9.124±1.022 33.320±1.466 64.623±2.520 9.733±1.178 SWP 43676 8639.862 17.232±1.728 10.188±1.141 69.59±1.022 33.320±1.466 64.623±2.520 9.733±1.178 SWP 43716 8649.945 13.18±1.319 11.754±1.296 40.307±1.747 73.296±2.859 10.240±1.239 SWP 43871 8649.367 13.18±1.319 11.754±1.296 40.307±1.747 73.296±2.859 10.240±1.239 SWP 43894 8651.756 12.264±1.226 10.32±1.124 45.83±2.021 76.959±3.001 10.892±1.318 SWP 43894 8651.756 12.264±1.226 10.32±1.124 50.32±1.124 50.59±1.335 SWP 43945 8660.040 14.856±1.486 9.827±1.101 35.52±1.695 67.91±2.2649 10.70±1.323 SWP 43945 8660.121 13.70±1.371 11.282±1.264 42.857±1.886 68.77±2.649 10.70±1.325 SWP 43945 8660.121 13.70±1.371 11.282±1.264 42.857±1.886 68.77±2.649 10.70±1.325 SWP 43945 8660.181 13.70±1.371 11.282±1.264 42.857±1.886 68.77±2.629 10.296±1.235 SWP 43946 8660.121 13.70±1.371 11.282±1.264 42.857±1.886 68.77±2.629 10.296±1.235 SWP 43946 8660.121 13.70±1.371 11.282±1.264 42.857±1.886 68.77±2.629 10.296±1.235 SWP 44909 868±1.99 13.95±1.490 13.95±1.190 69.91±1.190 69.91±1.295 69.91±1							
SWP 43473 8616.029 15.365±1.536 11.732±1.314 38.014±1.743 71.525±2.778 13.76±1.020±1.243 SWP 43539 8624.202 14.38±1.319 8.55±0.059 30.43±1.735 66.575±2.596 10.175±1.231 SWP 43540 8624.294 17.992±1.799 9.900±1.109 30.431±1.735 66.575±2.596 10.175±1.231 SWP 43541 8624.385 18.288±1.829 12.07±1.345 30.63±1.404 74.851±2.919 10.466±1.266 SWP 43557 8631.680 12.129±1.213 9.26±1.045 30.63±1.595 66.17±2.542 11.489±1.390 SWP 43587 8631.680 12.129±1.213 9.26±1.045 37.35±1.547 71.312±2.781 11.690±1.414 SWP 43568 8631.686 11.233±1.123 9.692±1.086 35.715±1.571 71.312±2.781 13.907±1.683 SWP 43636 863.56.88 13.38±1.339 9.492±1.086 35.715±1.571 71.312±2.781 13.907±1.683 SWP 43676 863.952 17.28±1.728 10.188±1.141 36.059±1.587 68.877±2.686 10.664±1.290 9.733±1.178 SWP 43676 863.948 18.714±1.871 11.037±1.236 40.307±1.774 73.296±2.99 .9733±1.178 SWP 43871 8649.367 13.185±1.319 11.574±1.296 42.142±1.854 72.81±2.840 10.015±1.212 SWP 43872 8649.454 15.88±1.588 12.645±1.416 49.39±2.021 76.959±3.00 10.802±1.318 SWP 43894 8651.756 12.264±1.256 10.32±1.224 38.313±1.686 67.904±2.648 12.443±1.506 SWP 43945 8660.121 13.709±1.371 11.295±1.1054 40.596±1.786 67.994±2.648 12.443±1.506 SWP 43945 8660.121 13.709±1.371 11.295±1.1054 40.596±1.786 67.994±2.648 12.443±1.506 SWP 43962 8660.040 14.856±1.446 11.559±1.295 39.347±1.731 70.19±2.737 10.559±1.232 SWP 43996 866.022							
SWP 43485 8618.118 13.188±1.319 8.559±0.959 37.369±1.644 73.775±2.877 10.270±1.231 SWP 43540 8624.294 17.99±1.799 9.900±1.109 36.819±1.620 66.575±2.526 66.577±2.521 11.21±1.599 SWP 43541 8024.385 18.28±1.829 12.007±1.345 36.93±1.747 47.851±2.91 10.466±1.296 SWP 43587 8628.595 18.169±1.817 9.672±1.083 36.259±1.595 65.17±2.542 11.489±1.390 SWP 43587 8631.650 11.233±1.123 9.92±1.086 36.75±1.517 17.31±2±5.24 11.489±1.390 SWP 43636 8635.688 13.38±1.123 9.92±1.086 36.75±1.517 17.31±2±5.07 13.397±1.683 SWP 43676 8639.862 17.28±1.738 9.12±1.022 33.32±1.747 73.296±2.859 10.20±1.233 SWP 43871 8649.367 13.15±1.139 11.57±1.266 40.307±1.774 73.296±2.859 10.20±1.232 SWP 43894 8651.756 12.26±1.226 10.32±1.105 45.93±2.021 76.959±3.001 10.89±1.318 SWP 43945							
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SWP 43996 8668.115 9.901±1.109 35.812±1.576 69.053±2.693 10.296±1.246 SWP 44020 8672.106 11.764±1.176 10.083±1.129 36.446±1.604 64.753±2.525 9.706±1.174 SWP 44048 8676.272 14.299±1.430 10.509±1.177 35.112±1.545 60.287±2.351 10.137±1.227 SWP 44099 8684.199 13.925±1.393 10.682±1.196 33.220±1.462 67.461±2.631 11.558±1.399 SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.995 SWP 44307 8715.612							
SWP 44020 8672.106 11.764±1.176 10.083±1.129 36.446±1.604 64.753±2.525 9.706±1.174 SWP 44048 8676.272 14.299±1.430 10.509±1.177 35.112±1.545 60.287±2.351 10.137±1.227 SWP 44092 8680.310 11.451±1.145 9.171±1.027 33.21±1.461 65.161±2.541 9.986±1.208 SWP 44099 8684.199 13.925±1.393 10.682±1.196 33.220±1.462 67.461±2.631 11.558±1.399 SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8668.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44208 803.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.773±1.064 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.366 60.820±2.372 8.547±1.034 SWP 44309 8719.932 <td></td> <td>8668.115</td> <td></td> <td></td> <td></td> <td></td> <td>10.296 ± 1.246</td>		8668.115					10.296 ± 1.246
SWP 44048 8676.272 14.299±1.430 10.509±1.177 35.112±1.545 60.287±2.351 10.137±1.227 SWP 44072 8680.310 11.451±1.145 9.171±1.027 33.214±1.461 65.161±2.541 9.986±1.208 SWP 44099 8684.199 13.925±1.393 10.682±1.196 33.220±1.462 67.461±2.631 11.558±1.399 SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.233 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44394 8719.932 <td></td> <td>8672.106</td> <td>11.764 ± 1.176</td> <td>10.083 ± 1.129</td> <td></td> <td>64.753 ± 2.525</td> <td></td>		8672.106	11.764 ± 1.176	10.083 ± 1.129		64.753 ± 2.525	
SWP 44072 8680.310 11.451±1.145 9.171±1.027 33.214±1.461 65.161±2.541 9.986±1.208 SWP 44099 8684.199 13.925±1.393 10.682±1.196 33.220±1.462 67.461±2.631 11.558±1.399 SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.93±1.064 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 30.015±1.453 66.884±2.569 9.412±1.139 SWP 44349 8719.932							
SWP 44099 8684.199 13.925±1.393 10.682±1.196 33.220±1.462 67.461±2.631 11.558±1.399 SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8695.216 8.912±0.891 7.930±0.888 29.519±1.299 63.911±2.493 9.846±1.191 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.049 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44350 8720.020			11.451 ± 1.145	9.171 ± 1.027	33.214 ± 1.461	65.161 ± 2.541	
SWP 44100 8684.275 11.177±1.118 12.329±1.381 31.722±1.396 64.203±2.504 14.211±1.720 SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44176 8692.216 8.912±0.891 7.930±0.888 29.519±1.299 63.911±2.493 9.846±1.191 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44381 8724.004		8684.199	13.925 ± 1.393		33.220 ± 1.462	67.461 ± 2.631	
SWP 44126 8688.228 8.477±0.848 7.211±0.808 29.611±1.303 57.594±2.246 9.462±1.145 SWP 44149 8692.216 8.912±0.891 7.930±0.888 29.519±1.299 63.911±2.493 9.846±1.191 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.668	SWP 44100		11.177 ± 1.118	12.329 ± 1.381	31.722 ± 1.396	64.203 ± 2.504	
SWP 44149 8692.216 8.912±0.891 7.930±0.888 29.519±1.299 63.911±2.493 9.846±1.191 SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.168	SWP 44126		8.477 ± 0.848		29.611 ± 1.303	57.594 ± 2.246	
SWP 44176 8695.910 10.943±1.094 8.069±0.904 26.618±1.171 58.785±2.293 10.981±1.329 SWP 44189 8699.713 8.945±0.894 8.916±0.999 28.493±1.254 57.753±2.252 7.723±0.934 SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.668		8692.216	8.912 ± 0.891	7.930 ± 0.888	29.519 ± 1.299	63.911 ± 2.493	9.846 ± 1.191
SWP 44208 8703.723 7.663±0.766 8.471±0.949 24.982±1.099 53.504±2.087 8.793±1.064 SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44461 8735.946	SWP 44176	8695.910	10.943 ± 1.094	8.069 ± 0.904		58.785 ± 2.293	
SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44435 8732.205 13.598±1.523 40.652±1.789 68.736±2.681 9.980±1.208 SWP 4466 8739.990	SWP 44189	8699.713	8.945 ± 0.894	8.916 ± 0.999	28.493 ± 1.254	57.753 ± 2.252	7.723 ± 0.934
SWP 44237 8707.871 9.909±0.991 8.974±1.005 27.480±1.209 56.975±2.222 7.860±0.951 SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44410 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44648 8739.990<	SWP 44208	8703.723	7.663 ± 0.766	8.471 ± 0.949	24.982 ± 1.099	53.504 ± 2.087	8.793 ± 1.064
SWP 44267 8711.731 13.391±1.339 9.154±1.025 31.722±1.396 60.820±2.372 8.547±1.034 SWP 44307 8715.612 11.593±1.159 12.355±1.384 33.015±1.453 65.884±2.569 9.412±1.139 SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44435 8735.946 14.037±1.404 10.790±1.208 37.320±1.642 69.492±2.710 11.347±1.373 SWP 44468 8739.990 10.913±1.091 11.056±1.238 33.716±1.484 63.079±2.460	SWP 44237		9.909 ± 0.991	8.974 ± 1.005	27.480 ± 1.209	56.975 ± 2.222	7.860 ± 0.951
SWP 44349 8719.932 11.976±1.198 9.588±1.074 33.504±1.474 61.410±2.395 9.790±1.185 SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44410 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44435 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44461 8735.946 14.037±1.404 10.790±1.208 37.320±1.642 69.492±2.710 11.347±1.373 SWP 44468 8739.990 10.913±1.091 11.056±1.238 33.716±1.484 63.079±2.460 10.973±1.328 SWP 44581 8747.874 13.851±1.385 10.644±1.192 37.659±1.657 71.354±2.783 <	SWP 44267		13.391 ± 1.339	$9.154{\pm}1.025$	31.722 ± 1.396	60.820 ± 2.372	8.547 ± 1.034
SWP 44350 8720.020 15.663±1.566 13.091±1.466 36.571±1.609 67.330±2.626 10.934±1.323 SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44410 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44461 8735.946 14.037±1.404 10.790±1.208 37.320±1.642 69.492±2.710 11.347±1.373 SWP 44468 8739.990 10.913±1.091 11.056±1.238 33.716±1.484 63.079±2.460 10.973±1.328 SWP 44492 8744.129 10.972±1.097 8.646±0.968 31.276±1.376 63.631±2.482 9.638±1.166 SWP 44627 8751.845 15.350±1.535 10.311±1.155 34.631±1.524 72.491±2.827 <	SWP 44307	8715.612	11.593 ± 1.159	12.355 ± 1.384	33.015 ± 1.453	65.884 ± 2.569	9.412 ± 1.139
SWP 44381 8724.004 12.488±1.249 8.475±0.949 38.718±1.704 64.045±2.498 9.589±1.160 SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44410 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44461 8732.205 13.598±1.523 40.652±1.789 68.736±2.681 9.980±1.208 SWP 44461 8735.946 14.037±1.404 10.790±1.208 37.320±1.642 69.492±2.710 11.347±1.373 SWP 44486 8739.990 10.913±1.091 11.056±1.238 33.716±1.484 63.079±2.460 10.973±1.328 SWP 44492 8744.129 10.972±1.097 8.646±0.968 31.276±1.376 63.631±2.482 9.638±1.166 SWP 44627 8751.845 15.350±1.535 10.311±1.155 34.631±1.524 72.491±2.827 8.062±0	SWP 44349	8719.932	11.976 ± 1.198	$9.588 {\pm} 1.074$	33.504 ± 1.474	61.410 ± 2.395	9.790 ± 1.185
SWP 44408 8727.967 11.592±1.159 11.942±1.338 39.422±1.735 68.315±2.664 7.924±0.959 SWP 44409 8728.068 11.346±1.271 37.210±1.637 67.746±2.642 11.943±1.445 SWP 44410 8728.168 15.773±1.577 11.716±1.312 37.375±1.645 72.573±2.830 11.679±1.413 SWP 44434 8731.946 16.459±1.646 11.614±1.301 41.213±1.813 72.594±2.831 8.378±1.014 SWP 44435 8732.205 13.598±1.523 40.652±1.789 68.736±2.681 9.980±1.208 SWP 44461 8735.946 14.037±1.404 10.790±1.208 37.320±1.642 69.492±2.710 11.347±1.373 SWP 44486 8739.990 10.913±1.091 11.056±1.238 33.716±1.484 63.079±2.460 10.973±1.328 SWP 44581 8744.129 10.972±1.097 8.646±0.968 31.276±1.376 63.631±2.482 9.638±1.166 SWP 44627 8751.845 13.851±1.385 10.644±1.192 37.659±1.657 71.354±2.783 9.569±1.158 SWP 44628 8751.950 14.578±1.458 10.779±1.207 39.274±1.728 71.496±2.788 9.285±		8720.020	15.663 ± 1.566	13.091 ± 1.466	36.571 ± 1.609	67.330 ± 2.626	10.934 ± 1.323
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44381	8724.004	$12.488 {\pm} 1.249$	8.475 ± 0.949	38.718 ± 1.704	$64.045{\pm}2.498$	9.589 ± 1.160
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44408		11.592 ± 1.159	11.942 ± 1.338	39.422 ± 1.735	68.315 ± 2.664	7.924 ± 0.959
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		8728.068		11.346 ± 1.271	37.210 ± 1.637	67.746 ± 2.642	11.943 ± 1.445
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44410		15.773 ± 1.577	11.716 ± 1.312	37.375 ± 1.645	72.573 ± 2.830	11.679 ± 1.413
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44434	8731.946	$16.459 {\pm} 1.646$	11.614 ± 1.301	41.213 ± 1.813	72.594 ± 2.831	8.378 ± 1.014
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44435	8732.205		13.598 ± 1.523	40.652 ± 1.789	68.736 ± 2.681	$9.980{\pm}1.208$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44461	8735.946	14.037 ± 1.404	10.790 ± 1.208	37.320 ± 1.642		11.347 ± 1.373
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44486	8739.990	10.913 ± 1.091	11.056 ± 1.238	33.716 ± 1.484		10.973 ± 1.328
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 44492	8744.129		$8.646 {\pm} 0.968$		63.631 ± 2.482	$9.638{\pm}1.166$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		8747.874	$13.851 {\pm} 1.385$	10.644 ± 1.192	37.659 ± 1.657	71.354 ± 2.783	9.569 ± 1.158
SWP 44629 8752.056 12.920 ± 1.292 8.708 ± 0.975 36.988 ± 1.627 67.524 ± 2.633 9.705 ± 1.174		8751.845	15.350 ± 1.535	10.311 ± 1.155	34.631 ± 1.524	72.491 ± 2.827	8.062 ± 0.976
		8751.950	14.578 ± 1.458	10.779 ± 1.207	39.274 ± 1.728	71.496 ± 2.788	$9.285{\pm}1.123$
SWP 44659 8755.872 13.868 ± 1.387 10.749 ± 1.204 37.794 ± 1.663 68.993 ± 2.691 9.236 ± 1.118	SWP 44629	8752.056	$12.920{\pm}1.292$	$8.708 {\pm} 0.975$	$36.988 {\pm} 1.627$		9.705 ± 1.174
	SWP 44659	8755.872	13.868 ± 1.387	10.749 ± 1.204	37.794 ± 1.663	68.993 ± 2.691	$9.236{\pm}1.118$

Table 3—Continued

Name (2,440,000+) O III] λ1663 O IV] λ1402 Lyα C IV λ1549 C III] λ1909 SWP 44680 8759.949 9.701±1.087 3.784±1.637 71.405±2.785 73.00±0.805 SWP 44731 8763.559 15.880±1.588 10.974±1.229 36.521±1.607 65.598±2.558 9.866±1.194 SWP 44760 8771.689 12.725±1.273 11.678±1.308 30.261±1.331 60.436±3.37 9.198±1.113 SWP 44803 8771.689 12.725±1.273 11.678±1.308 30.261±1.347 63.469±2.475 9.198±1.113 SWP 44830 8775.633 15.957±1.596 10.018±1.122 34.556±1.507 60.46±2.389 11.703±1.168 SWP 44873 8779.607 12.230±1.223 13.309±1.491 33.092±1.492 62.857±2.451 7.113±0.861 SWP 44918 8785.949 10.63±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44922 8787.864 11.840±1.184 8.867±0.933 34.94±1.505 66.079±2.577 11.88±1.276 SWP 44949 8791.769 1.495±1				G. 777			G. 7771 1
SWP 44660 8755.949 9.701±1.087 37.884±1.667 71.405±2.785 13.026±1.576 SWP 44682 8759.702 13.730±1.373 11.811±1.323 37.249±1.639 68.033±2.633 7.400±0.895 SWP 44760 8767.535 10.55±±1.055 9.223±1.033 31.337±1.379 54.612±2.130 10.060±1.217 SWP 44804 8771.772 12.169±1.217 8.266±0.925 30.261±1.331 60.436±2.357 9.198±1.113 SWP 44804 8771.777 12.169±1.217 8.266±0.925 30.620±1.347 63.632±2.459 13.37±1.416 SWP 44873 8779.607 12.230±1.223 11.331 30±1.491 33.92±1.492 62.587±2.451 11.703±1.416 SWP 44918 8785.949 10.63±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.864 11.840±1.184 8.687±0.973 34.95±1.534 64.779±2.526 10.548±1.276 SWP 44935 8790.131 14.78±1.478 9.681±1.084 33.99±2.449 67.052±2.751 11.881±1.438 SWP 44949 87	Image Name	Julian Date (2.440.000±)	He II $\lambda 1640 +$	Si IV $\lambda 1400 +$	Lvo	C IV \1549	Si III] $\lambda 1892 +$
SWP 44682 8759.702 13.730±1.373 11.811±1.323 37.249±1.639 68.033±2.653 7.400±0.85 SWP 44760 8767.535 10.55±1.055 9.223±1.033 31.337±1.379 54.61±2±.130 10.060±1.217 SWP 44804 8771.772 12.169±1.217 31.678±1.308 30.261±1.331 60.436±2.357 9.198±1.113 SWP 44804 8771.777 12.20±1.223 13.30±1.122 34.56±1.520 61.264±2.389 11.703±1.416 SWP 44873 8779.607 12.23±1.223 13.30±1.412 34.56±1.520 61.264±2.389 11.703±1.416 SWP 44997 8783.948 15.93±1.593 9.82±1.101 35.165±1.547 65.00±2.535 8.76±1.060 SWP 4491 8787.861 17.02±1.270 10.055±1.126 34.65±1.647 62.983±2.456 6.630±0.802 SWP 44922 8787.864 11.80±1.147 9.08±1.084 33.99±2±1.185 67.99±2.577 11.88±1.438 SWP 44949 8791.769 15.40±5.154 66.52±1.640 67.39±2.2652 11.23±1.339 SWP 44940 8793.661 16.58±1.466 9				-	<u> </u>		
SWP 44731 8763.559 15.880±1.588 10.974±1.229 36.521±1.607 65.598±2.558 9.866±1.194 SWP 44803 8771.689 12.725±1.273 11.678±1.308 30.261±1.331 60.436±2.357 9.198±1.113 SWP 44803 8775.633 15.957±1.596 10.018±1.122 30.620±1.334 63.469±2.475 12.367±1.496 SWP 44833 8776.607 12.230±1.223 13.309±1.491 33.90±1.492 62.857±2.451 7.113±0.861 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.75±1.617 65.009±2.535 8.760±1.060 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.466 6.630±0.802 SWP 44921 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44922 8787.864 11.840±1.184 9.681±1.084 33.982±1.495 67.992±2.652 11.232±1.359 SWP 44950 8791.159 15.495±1.549 9.681±1.084 33.675±1.672 67.789±2.652 11.232±1.359 SWP 44944 8795.68							
SWP 44760 8767.535 10.554±1.055 9.223±1.033 31.337±1.379 54.612±2.130 10.060±1.217 SWP 44804 8771.772 12.169±1.217 8.260±0.925 30.261±1.331 60.436±2.357 9.198±1.113 SWP 44804 8771.772 12.169±1.217 8.260±0.925 30.620±1.347 63.469±2.475 12.367±1.496 SWP 44873 8779.607 12.230±1.223 13.099±1.491 33.09±1.492 63.469±2.475 12.367±1.496 SWP 44907 8783.948 15.930±1.593 9.829±1.101 35.165±1.547 65.009±2.535 8.760±1.060 SWP 44912 8785.749 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 6.630±0.802 SWP 44922 8787.864 11.840±1.184 8.687±0.973 34.19±1.505 66.079±2.577 11.881±1.358 SWP 44949 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44954 8793.936 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
SWP 44803 8771.689 12.725±1.273 11.678±1.308 30.261±1.331 60.436±2.357 9.198±1.113 SWP 44830 8775.633 15.957±1.596 10.018±1.122 34.556±1.520 61.264±2.389 11.703±1.416 SWP 44873 8779.607 12.230±1.223 13.309±1.491 33.90±1.492 62.857±2.451 7.113±0.861 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.99±2.652 11.32±1.339 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.412±2.629 14.068±1.702 SWP 44904 8793.963 14.658±1.669 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 45010 8797.44							
SWP 44804 8771.772 12.169±1.217 8.260±0.925 30.620±1.347 63.469±2.475 12.367±1.496 SWP 44873 8779.607 12.230±1.223 13.309±1.491 33.90±1.492 62.857±2.451 7.113±0.861 SWP 44907 8783.948 15.930±1.593 9.829±1.101 35.165±1.547 65.09±2.535 8.760±1.060 SWP 44918 8785.949 10.634±1.063 11.91±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.866 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44922 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.79±2.577 11.881±1.438 SWP 44938 8791.13 14.784±1.478 9.681±1.084 33.982±1.495 67.99±2.252 11.232±1.359 SWP 44964 8793.963 14.655±1.549 11.760±1.317 37.262±1.640 70.52±2.751 9.822±1.188 SWP 44964 8793.963 14.657±1.458 10.878±1.218 37.405±1.646 69.19±2.727 8.464±1.024 SWP 4501 8.797.538							
SWP 44830 8775.633 15.957±1.596 10.018±1.122 34.556±1.520 61.264±2.389 11.703±1.416 SWP 44907 8783.948 15.930±1.593 9.829±1.101 35.165±1.547 65.009±2.535 8.760±1.060 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44922 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.079±2.577 11.881±1.438 SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.09±2.652 11.232±1.359 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.412±2.629 14.068±1.702 SWP 44974 8795.756 14.658±1.466 9.572±1.072 37.016±1.629 67.78±2.643 10.045±1.215 SWP 45010 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.72±2±2.797 10.318±1.248 SWP 45026 8801.							
SWP 44873 8779.607 12.230±1.233 13.309±1.491 33.90±1.492 62.857±2.451 7.113±0.861 SWP 44918 8785.948 15.930±1.593 9.829±1.101 35.165±1.547 65.009±2.535 8.760±1.060 SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.547 62.983±2.456 6.630±0.802 SWP 44921 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.079±2.577 11.881±1.438 SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.99±2.5672 11.881±1.438 SWP 44994 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.53±2.751 9.822±1.188 SWP 44964 8793.963 14.658±1.466 9.57±2±1.072 37.016±1.626 67.780±2.643 10.045±1.215 SWP 44992 8797.548 16.789±1.679 11.013±1.233 37.405±1.646 69.91±2.727 4.64±1.024 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45026 8801.877 <td>SWP 44804</td> <td>8771.772</td> <td>12.169 ± 1.217</td> <td>8.260 ± 0.925</td> <td>30.620 ± 1.347</td> <td>63.469 ± 2.475</td> <td>12.367 ± 1.496</td>	SWP 44804	8771.772	12.169 ± 1.217	8.260 ± 0.925	30.620 ± 1.347	63.469 ± 2.475	12.367 ± 1.496
SWP 44907 8783.948 15.930±1.593 9.829±1.101 35.165±1.547 65.009±2.535 8.760±1.060 SWP 449121 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.79±2.526 10.548±1.276 SWP 44922 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.079±2.577 11.841±1.438 SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.992±2.652 11.23±1.359 SWP 44949 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.53±2.751 9.822±1.188 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.780±2.633 10.468±1.702 SWP 44974 8795.768 14.57±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 4992 8797.588 1.64±1.514 10.938±1.225 37.047±1.655 61.098±2.383 9.052±1.095 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45025 8801.898 <td>SWP 44830</td> <td></td> <td>15.957 ± 1.596</td> <td>10.018 ± 1.122</td> <td>34.556 ± 1.520</td> <td>61.264 ± 2.389</td> <td>11.703 ± 1.416</td>	SWP 44830		15.957 ± 1.596	10.018 ± 1.122	34.556 ± 1.520	61.264 ± 2.389	11.703 ± 1.416
SWP 44918 8785.949 10.634±1.063 11.991±1.343 36.745±1.617 62.983±2.456 6.630±0.802 SWP 44921 8787.786 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44932 8787.864 11.840±1.184 8.687±0.973 34.194±1.055 66.079±2.577 11.881±1.438 SWP 44935 8790.113 14.78±1.478 9.681±1.084 33.982±1.495 67.992±2.652 11.232±1.359 SWP 44950 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44964 8793.963 14.655±1.466 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.060±1.655 71.690±2.796 11.005±1.332 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.838 9.052±1.095 SWP 45024 8801.764 11.581±1.58 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45038 8803.485							
SWP 44921 8787.866 12.702±1.270 10.055±1.126 34.865±1.534 64.779±2.526 10.548±1.276 SWP 44925 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.079±2.577 11.881±1.438 SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.992±2.652 11.232±1.359 SWP 44949 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.412±2.629 14.068±1.702 SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.58±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45026 8801.956							
SWP 44922 8787.864 11.840±1.184 8.687±0.973 34.194±1.505 66.079±2.577 11.881±1.438 SWP 44949 8790.113 14.784±1.478 9.681±1.084 33.982±1.439 67.992±2.652 11.232±1.359 SWP 44949 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.412±2.629 14.068±1.702 SWP 44974 8795.768 14.575±1.458 10.878±1.218 37.405±1.646 69.919±7.277 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.857 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.519 11.732±1.420 SWP 45038 8803.458 <td></td> <td>8785.949</td> <td>10.634 ± 1.063</td> <td>11.991 ± 1.343</td> <td>36.745 ± 1.617</td> <td>62.983 ± 2.456</td> <td>6.630 ± 0.802</td>		8785.949	10.634 ± 1.063	11.991 ± 1.343	36.745 ± 1.617	62.983 ± 2.456	6.630 ± 0.802
SWP 44935 8790.113 14.784±1.478 9.681±1.084 33.982±1.495 67.992±2.652 11.23±1.359 SWP 44949 8791.669 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.780±2.643 10.045±1.215 SWP 44964 8793.963 14.658±1.466 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45063 8807.520	SWP 44921	8787.786	12.702 ± 1.270	10.055 ± 1.126	34.865 ± 1.534	64.779 ± 2.526	10.548 ± 1.276
SWP 44949 8791.769 15.495±1.549 11.760±1.317 37.262±1.640 70.532±2.751 9.822±1.188 SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.612 67.412±2.629 14.068±1.702 SWP 44964 8793.963 14.658±1.466 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45038 8803.458 11.437±1.420 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45062 8805.543 16.84±1.611	SWP 44922	8787.864	11.840 ± 1.184	8.687 ± 0.973	34.194 ± 1.505	66.079 ± 2.577	11.881 ± 1.438
SWP 44950 8791.857 15.004±1.500 10.425±1.168 36.716±1.616 67.412±2.629 14.068±1.702 SWP 44964 8793.963 14.658±1.466 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.05±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 44993 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.72±2.797 10.318±1.248 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.105 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45038 8807.503 16.84±1.684 12.541±1.405 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45063 8807.5	SWP 44935	8790.113	14.784 ± 1.478	9.681 ± 1.084	33.982 ± 1.495	67.992 ± 2.652	11.232 ± 1.359
SWP 44964 8793.963 14.658±1.466 9.572±1.072 37.016±1.629 67.780±2.643 10.045±1.215 SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 44993 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.722±2.797 10.318±1.248 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.896 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.865 10.795±1.306 SWP 45062 8805.543 16.844±1.684 12.541±1.405 41.348±1.819 73.45±2.865 10.795±1.306 SWP 45064 8807.603 <td>SWP 44949</td> <td>8791.769</td> <td>15.495 ± 1.549</td> <td>11.760 ± 1.317</td> <td>37.262 ± 1.640</td> <td>70.532 ± 2.751</td> <td>9.822 ± 1.188</td>	SWP 44949	8791.769	15.495 ± 1.549	11.760 ± 1.317	37.262 ± 1.640	70.532 ± 2.751	9.822 ± 1.188
SWP 44974 8795.768 14.577±1.458 10.878±1.218 37.405±1.646 69.919±2.727 8.464±1.024 SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 44993 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.722±2.797 10.318±1.248 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45026 8801.996 11.679±1.168 9.878±1.105 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45052 8805.543 16.844±1.684 12.541±1.405 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45064 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.31±1.524 60.999±2.695	SWP 44950	8791.857	15.004 ± 1.500	$10.425{\pm}1.168$	36.716 ± 1.616	67.412 ± 2.629	14.068 ± 1.702
SWP 44992 8797.448 16.789±1.679 11.013±1.233 37.606±1.655 71.690±2.796 11.005±1.332 SWP 44993 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.72±2.797 10.318±1.248 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.60±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45063 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.034±2.809 11.587±1.402 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.13±1.554 70.550±2.751 11.009±1.332 SWP 45086 8811.493	SWP 44964	8793.963	14.658 ± 1.466	9.572 ± 1.072	37.016 ± 1.629	67.780 ± 2.643	10.045 ± 1.215
SWP 44993 8797.538 15.144±1.514 10.938±1.225 37.047±1.630 71.72±±2.797 10.318±1.248 SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45063 8807.503 16.108±1.611 3.618±1.525 40.783±1.409 73.452±2.865 10.795±1.306 SWP 45064 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.53±1.404 35.31±1.554 70.550±2.751 11.009±1.332 SWP 45086 8811.493 <td>SWP 44974</td> <td>8795.768</td> <td>14.577 ± 1.458</td> <td>10.878 ± 1.218</td> <td>37.405 ± 1.646</td> <td>69.919 ± 2.727</td> <td>8.464 ± 1.024</td>	SWP 44974	8795.768	14.577 ± 1.458	10.878 ± 1.218	37.405 ± 1.646	69.919 ± 2.727	8.464 ± 1.024
SWP 45010 8799.460 15.066±1.507 10.861±1.216 38.602±1.698 61.098±2.383 9.052±1.095 SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45052 8805.543 16.844±1.684 12.541±1.405 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45063 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.034±2.809 11.587±1.402 SWP 45081 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 98.78±1.195 SWP 45196 8811.493 <td>SWP 44992</td> <td>8797.448</td> <td>16.789 ± 1.679</td> <td>11.013 ± 1.233</td> <td>37.606 ± 1.655</td> <td>71.690 ± 2.796</td> <td>11.005 ± 1.332</td>	SWP 44992	8797.448	16.789 ± 1.679	11.013 ± 1.233	37.606 ± 1.655	71.690 ± 2.796	11.005 ± 1.332
SWP 45024 8801.764 11.581±1.158 11.610±1.300 63.585±2.480 11.248±1.361 SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45052 8805.543 16.844±1.684 12.541±1.405 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45063 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.034±2.809 11.587±1.402 SWP 45064 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.314±1.554 70.550±2.751 11.099±1.332 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 9.878±1.195 SWP 45096 8811.595 15.899±1.590 13.38±1.409 38.451±1.692 72.306±2.820	SWP 44993	8797.538	15.144 ± 1.514	10.938 ± 1.225	37.047 ± 1.630	71.722 ± 2.797	10.318 ± 1.248
SWP 45025 8801.887 13.310±1.331 9.372±1.050 34.032±1.497 64.283±2.507 10.079±1.220 SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45063 8807.520 16.108±1.611 13.618±1.525 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45064 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.314±1.554 70.550±2.751 11.009±1.332 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 9.878±1.195 SWP 45096 8811.493 15.791±1.579 13.392±1.500 35.964±1.582 69.099±2.695 11.158±1.350 SWP 45106 8813.384 14.546±1.455 10.726±1.201 36.440±1.603 64.005±2.496 12.925±1.564 SWP 45118 88	SWP 45010	8799.460	15.066 ± 1.507	10.861 ± 1.216	38.602 ± 1.698	61.098 ± 2.383	9.052 ± 1.095
SWP 45026 8801.996 11.679±1.168 9.878±1.106 35.559±1.565 64.598±2.519 11.732±1.420 SWP 45038 8803.458 11.433±1.143 11.278±1.263 36.813±1.620 66.819±2.606 8.374±1.013 SWP 45052 8805.543 16.844±1.684 12.541±1.405 41.348±1.819 73.452±2.865 10.795±1.306 SWP 45063 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.034±2.809 11.587±1.402 SWP 45064 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.314±1.554 70.550±2.751 11.009±1.332 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 9.878±1.195 SWP 45096 8811.493 15.791±1.579 13.392±1.500 35.964±1.582 69.099±2.695 11.158±1.350 SWP 45106 8813.384 14.546±1.455 10.726±1.201 36.440±1.603 64.005±2.496 12.925±1.564 SWP 45118 8	SWP 45024	8801.764	11.581 ± 1.158	11.610 ± 1.300		$63.585{\pm}2.480$	11.248 ± 1.361
$\begin{array}{c} \mathrm{SWP}\ 45038 \\ \mathrm{SWP}\ 45052 \\ \mathrm{S805.543} \\ \mathrm{SWP}\ 45052 \\ \mathrm{S805.543} \\ \mathrm{SWP}\ 45063 \\ \mathrm{SWP}\ 45063 \\ \mathrm{SWP}\ 45063 \\ \mathrm{SWP}\ 45063 \\ \mathrm{SWP}\ 45064 \\ \mathrm{S807.520} \\ \mathrm{I}\ 6.108\pm1.611 \\ \mathrm{I}\ 13.618\pm1.525 \\ \mathrm{I}\ 2.541\pm1.405 \\ \mathrm{I}\ 4.348\pm1.819 \\ \mathrm{I}\ 73.452\pm2.865 \\ \mathrm{I}\ 0.795\pm1.306 \\ \mathrm{I}\ 5.879\pm1.306 \\ \mathrm{I}\ 5.879\pm1.402 \\ \mathrm{I}\ 5.899\pm1.529 \\ \mathrm{I}\ 2.634\pm1.415 \\ \mathrm{I}\ 36.449\pm1.604 \\ \mathrm{I}\ 2.370\pm2.822 \\ \mathrm{I}\ 2.714\pm1.538 \\ \mathrm{SWP}\ 45081 \\ \mathrm{SWP}\ 45082 \\ \mathrm{S809.509} \\ \mathrm{I}\ 4.579\pm1.438 \\ \mathrm{I}\ 2.532\pm1.404 \\ \mathrm{I}\ 3.5314\pm1.554 \\ \mathrm{I}\ 3.052\pm1.529 \\ \mathrm{I}\ 3.032\pm1.404 \\ \mathrm{I}\ 3.5314\pm1.554 \\ \mathrm{I}\ 70.550\pm2.751 \\ \mathrm{I}\ 1.009\pm1.332 \\ \mathrm{SWP}\ 45082 \\ \mathrm{S809.601} \\ \mathrm{I}\ 4.549\pm1.455 \\ \mathrm{I}\ 3.052\pm1.462 \\ \mathrm{I}\ 3.033\pm1.673 \\ \mathrm{I}\ 74.732\pm2.915 \\ \mathrm{I}\ 9.878\pm1.195 \\ \mathrm{I}\ 3.992\pm1.500 \\ \mathrm{I}\ 3.392\pm1.500 \\ \mathrm{I}\ 35.964\pm1.582 \\ \mathrm{I}\ 69.099\pm2.695 \\ \mathrm{I}\ 1.158\pm1.350 \\ \mathrm{I}\ 5.899\pm1.590 \\ \mathrm{I}\ 3.384\pm1.499 \\ \mathrm{I}\ 3.8451\pm1.692 \\ \mathrm{I}\ 72.306\pm2.820 \\ \mathrm{I}\ 10.461\pm1.266 \\ \mathrm{I}\ 4.549\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 2.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 2.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 2.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.441 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 12.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.441 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 12.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.441 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\ 10.726\pm1.201 \\ \mathrm{I}\ 36.440\pm1.603 \\ \mathrm{I}\ 4.005\pm2.496 \\ \mathrm{I}\ 12.925\pm1.564 \\ \mathrm{I}\ 4.546\pm1.4155 \\ \mathrm{I}\ 4.546\pm1.455 \\ \mathrm{I}\$	SWP 45025	8801.887	13.310 ± 1.331	9.372 ± 1.050	34.032 ± 1.497	64.283 ± 2.507	10.079 ± 1.220
$\begin{array}{c} \mathrm{SWP}\ 45052\\ \mathrm{SWP}\ 45063\\ \mathrm{SWP}\ 45063\\ \mathrm{SWP}\ 45063\\ \mathrm{SWP}\ 45064\\ \mathrm{SWP}\ 45081\\ \mathrm{SWP}\ 45081\\ \mathrm{SWP}\ 45081\\ \mathrm{SWP}\ 45081\\ \mathrm{SWP}\ 45082\\ \mathrm{SWP}\ 45082\\ \mathrm{SWP}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWI}\ 45096\\ \mathrm{SWP}\ 45106\\ \mathrm{SWP}\ 45106\\ \mathrm{SWP}\ 45118\\ \mathrm{SWP}\ 45118\\ \mathrm{SWP}\ 45133\\ \mathrm{SWP}\ 45133\\ \mathrm{SWP}\ 45100\\ \mathrm{SWP}\ 45150\\ \mathrm{SWP}\ 45150\\ \mathrm{SWP}\ 45150\\ \mathrm{SWP}\ 45151\\ \mathrm{SWP}\ 45152\\ \mathrm{SWP}\ 45167\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45167\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45169\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45168\\ \mathrm{SWP}\ 45169\\ \mathrm{SWP}\ 45194\\ \mathrm{SWP}\ 45195\\ \mathrm{M}\ 30100000000000000000000000000000000000$	SWP 45026	8801.996	11.679 ± 1.168	9.878 ± 1.106	35.559 ± 1.565	64.598 ± 2.519	11.732 ± 1.420
SWP 45063 8807.520 16.108±1.611 13.618±1.525 40.783±1.794 72.034±2.809 11.587±1.402 SWP 45064 8807.603 15.292±1.529 12.634±1.415 36.449±1.604 72.370±2.822 12.714±1.538 SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.314±1.554 70.550±2.751 11.009±1.332 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 9.878±1.195 SWP 45096 8811.493 15.791±1.579 13.392±1.500 35.964±1.582 69.099±2.695 11.158±1.350 SWP 45097 8811.595 15.899±1.590 13.384±1.499 38.451±1.692 72.306±2.820 10.461±1.266 SWP 45106 8813.384 14.546±1.455 10.726±1.201 36.440±1.603 64.005±2.496 12.925±1.564 SWP 45118 8816.028 13.700±1.370 8.430±0.944 34.493±1.518 67.487±2.632 11.906±1.441 SWP 45150 8819.700 8.954±0.895 8.490±0.951 27.355±1.204 55.596±2.168 SWP 45167 8819.800 7.794±0.779 6.574±0.736 31.274±1.376 52.838±2.061 <	SWP 45038	8803.458	11.433 ± 1.143	11.278 ± 1.263	36.813 ± 1.620	66.819 ± 2.606	8.374 ± 1.013
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45052	8805.543	16.844 ± 1.684	12.541 ± 1.405	41.348 ± 1.819	73.452 ± 2.865	10.795 ± 1.306
SWP 45081 8809.509 14.375±1.438 12.532±1.404 35.314±1.554 70.550±2.751 11.009±1.332 SWP 45082 8809.601 14.549±1.455 13.052±1.462 38.033±1.673 74.732±2.915 9.878±1.195 SWP 45096 8811.493 15.791±1.579 13.392±1.500 35.964±1.582 69.099±2.695 11.158±1.350 SWP 45097 8811.595 15.899±1.590 13.384±1.499 38.451±1.692 72.306±2.820 10.461±1.266 SWP 45106 8813.384 14.546±1.455 10.726±1.201 36.440±1.603 64.005±2.496 12.925±1.564 SWP 45118 8816.028 13.700±1.370 8.430±0.944 34.493±1.518 67.487±2.632 11.906±1.441 SWP 45133 8818.024 10.933±1.093 11.187±1.253 32.175±1.416 66.611±2.598 11.225±1.358 SWP 45150 8819.700 8.954±0.895 8.490±0.951 27.355±1.204 55.596±2.168 SWP 45151 8819.800 7.794±0.779 6.574±0.736 31.274±1.376 52.838±2.061 12.267±1.484 SWP 45168 8821.689 11.037±1.104 8.706±0.975 30.555±1.344 62.589±2.441 <t< td=""><td>SWP 45063</td><td>8807.520</td><td>16.108 ± 1.611</td><td>13.618 ± 1.525</td><td>40.783 ± 1.794</td><td>72.034 ± 2.809</td><td>11.587 ± 1.402</td></t<>	SWP 45063	8807.520	16.108 ± 1.611	13.618 ± 1.525	40.783 ± 1.794	72.034 ± 2.809	11.587 ± 1.402
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45064	8807.603	15.292 ± 1.529	12.634 ± 1.415	36.449 ± 1.604	72.370 ± 2.822	12.714 ± 1.538
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45081	8809.509	14.375 ± 1.438	12.532 ± 1.404	35.314 ± 1.554	70.550 ± 2.751	11.009 ± 1.332
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45082	8809.601	14.549 ± 1.455	13.052 ± 1.462	38.033 ± 1.673	74.732 ± 2.915	9.878 ± 1.195
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45096	8811.493	15.791 ± 1.579	13.392 ± 1.500	35.964 ± 1.582	69.099 ± 2.695	11.158 ± 1.350
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45097	8811.595	15.899 ± 1.590	13.384 ± 1.499	38.451 ± 1.692	72.306 ± 2.820	10.461 ± 1.266
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45106	8813.384	14.546 ± 1.455	10.726 ± 1.201	$36.440{\pm}1.603$	64.005 ± 2.496	12.925 ± 1.564
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45118	8816.028	13.700 ± 1.370	8.430 ± 0.944	34.493 ± 1.518	67.487 ± 2.632	11.906 ± 1.441
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45133	8818.024	10.933 ± 1.093	11.187 ± 1.253	32.175 ± 1.416	66.611 ± 2.598	11.225 ± 1.358
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45150	8819.700	8.954 ± 0.895	8.490 ± 0.951	27.355 ± 1.204	55.596 ± 2.168	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45151	8819.800	7.794 ± 0.779	6.574 ± 0.736	31.274 ± 1.376	52.838 ± 2.061	12.267 ± 1.484
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45152	8819.904	7.073 ± 0.707	8.813 ± 0.987	30.107 ± 1.325	59.321 ± 2.314	9.929 ± 1.201
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45167	8821.689	11.037 ± 1.104	8.706 ± 0.975	30.555 ± 1.344	62.589 ± 2.441	10.167 ± 1.230
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	SWP 45168	8821.791	12.697 ± 1.270	7.656 ± 0.857	29.693 ± 1.306	57.353 ± 2.237	9.218 ± 1.115
SWP 45195 8824.440 13.914 ± 1.391 29.242 ± 1.287 61.297 ± 2.391 9.275 ± 1.122	SWP 45169	8821.892	11.109 ± 1.111	8.925 ± 1.000	29.510 ± 1.298	56.358 ± 2.198	11.512 ± 1.393
SWP 45195 8824.440 13.914 ± 1.391 29.242 ± 1.287 61.297 ± 2.391 9.275 ± 1.122		8824.353	14.707 ± 1.471	9.936 ± 1.113	31.339 ± 1.379	59.284 ± 2.312	$8.923{\pm}1.080$
	SWP 45195	8824.440	13.914 ± 1.391		29.242 ± 1.287	61.297 ± 2.391	
SWP 45206 8825.701 14.222 ± 1.422 10.173 ± 1.139 33.615 ± 1.479 64.641 ± 2.521 · · ·	SWP 45206	8825.701	14.222 ± 1.422	10.173 ± 1.139	33.615 ± 1.479	64.641 ± 2.521	
$ \text{SWP } 45207 \qquad 8825.798 \qquad 16.205 \pm 1.620 \qquad 9.322 \pm 1.044 \qquad 30.904 \pm 1.360 60.589 \pm 2.363 \qquad 10.583 \pm 1.281 \\$	SWP 45207	8825.798	$16.205 {\pm} 1.620$	$9.322 {\pm} 1.044$	30.904 ± 1.360	60.589 ± 2.363	10.583 ± 1.281
$ \text{SWP } 45219 \qquad 8827.904 \qquad 14.897 \pm 1.490 \qquad 12.322 \pm 1.380 \qquad 35.942 \pm 1.581 \qquad 63.532 \pm 2.478 \qquad 8.180 \pm 0.990 \\$	SWP 45219	8827.904	14.897 ± 1.490	12.322 ± 1.380	35.942 ± 1.581	63.532 ± 2.478	8.180 ± 0.990
$ \text{SWP } 45227 \qquad 8829.302 \qquad 14.370 \pm 1.437 \qquad 14.745 \pm 1.651 \qquad 36.139 \pm 1.590 \qquad 72.627 \pm 2.832 \qquad 9.507 \pm 1.150 \\$	SWP 45227	8829.302	14.370 ± 1.437	14.745 ± 1.651	36.139 ± 1.590	72.627 ± 2.832	9.507 ± 1.150
$ \text{SWP } 45237 \qquad 8831.317 \qquad 14.427 \pm 1.443 \qquad 13.534 \pm 1.516 \qquad 35.966 \pm 1.583 \qquad 66.867 \pm 2.608 \qquad 9.803 \pm 1.186 $		8831.317	$14.427 {\pm} 1.443$	13.534 ± 1.516	35.966 ± 1.583	66.867 ± 2.608	9.803 ± 1.186
$ \text{SWP } 45246 \qquad 8833.326 \qquad 18.615 \pm 1.862 \qquad 11.108 \pm 1.244 \qquad 36.969 \pm 1.627 \qquad 69.398 \pm 2.707 \qquad 11.312 \pm 1.369 $	SWP 45246	8833.326	18.615 ± 1.862	11.108 ± 1.244	36.969 ± 1.627	$69.398 {\pm} 2.707$	11.312 ± 1.369

 $^{^{\}rm a}{\rm Emission}$ line fluxes are in units of $10^{-13}~{\rm ergs~cm^{-2}~s^{-1}}.$

TABLE 4
UV VELOCITY DATA^a

Emission Line	$V_{FWHM}^{rest}(rms)$	$V_{FWHM}^{rest}(mean)$
He II $\lambda 1640 + O$ III] $\lambda 1663$ Si IV $\lambda 1400 + O$ IV] $\lambda 1402$	6.34 ± 0.90 5.73 ± 2.71	4.74 ± 0.69 4.81 ± 0.50
Ly α C IV $\lambda 1549$	3.55 ± 0.59	3.03 ± 0.07
Si III] $\lambda 1892 + C$ III] $\lambda 1909$	$2.61{\pm}0.16$	$2.82{\pm}0.31$

 $^{^{\}rm a} \mbox{Velocity data}$ are in units of $10^3~\mbox{km s}^{-1}.$

TABLE 5
OPTICAL FLUX DATA

	T.11 D.		
Image	Julian Date	T/\F1F0\2	TT ab
Name	(2,440,000+)	$F(\lambda 5150)^a$	${ m H}eta^{ m b}$
n38607a	8607.830	11.406 ± 0.605	9.829 ± 0.403
n38623a	8623.830	11.707 ± 0.620	10.100 ± 0.414
n38627a	8627.830	11.094 ± 0.588	10.272 ± 0.421
n38631a	8631.840	10.865 ± 0.576	10.494 ± 0.430
n38635a	8635.830	10.781 ± 0.571	10.183 ± 0.418
n38639a	8639.840	11.303 ± 0.599	10.327 ± 0.423
n38643a	8643.720	12.788 ± 0.678	10.423 ± 0.427
n38647a	8647.760	12.668 ± 0.671	10.459 ± 0.429
n38651a	8651.670	11.190 ± 0.593	10.603 ± 0.435
n38656a	8656.770	12.163 ± 0.645	10.669 ± 0.437
n38660a	8660.770	11.629 ± 0.616	10.109 ± 0.414
n38664a	8664.770	11.005 ± 0.583	10.894 ± 0.447
n38668a	8668.810	10.204 ± 0.541	10.969 ± 0.450
n38676a	8676.710	10.817 ± 0.573	9.760 ± 0.400
n38677a	8677.800	10.786 ± 0.572	9.483 ± 0.389
n38678a	8678.680	10.703 ± 0.567	9.513 ± 0.390
n38704a	8704.580	8.763 ± 0.464	8.469 ± 0.347
n38712a	8712.590	10.350 ± 0.549	8.410 ± 0.345
n38716a	8716.600	10.055 ± 0.533	8.840 ± 0.362
n38720a	8720.590	11.842 ± 0.628	$9.395 {\pm} 0.385$
n38724a	8724.560	11.257 ± 0.597	9.640 ± 0.395
n38732a	8732.560	11.212 ± 0.594	9.357 ± 0.384
n38736a	8736.550	10.149 ± 0.538	9.410 ± 0.386
n38744a	8744.610	10.812 ± 0.573	10.537 ± 0.432
n38752a	8752.570	11.174 ± 0.592	9.606 ± 0.394
n38763a	8763.580	11.880 ± 0.630	11.678 ± 0.479
n38764a	8764.560	10.754 ± 0.570	10.131 ± 0.415
n38772a	8772.630	11.799 ± 0.625	$9.627 {\pm} 0.395$
n38776a	8776.560	10.636 ± 0.564	9.272 ± 0.380
n38794a	8794.570	11.444 ± 0.607	10.803 ± 0.443
n38804a	8804.470	$12.281 {\pm} 0.651$	11.780 ± 0.483
n38808a	8808.480	12.773 ± 0.677	$10.531 {\pm} 0.432$
n38822a	8822.480	$12.917 {\pm} 0.685$	11.060 ± 0.453
n38824a	8824.470	11.765 ± 0.624	10.108 ± 0.414
n38826a	8826.470	$12.717 {\pm} 0.674$	$9.912 {\pm} 0.406$
n38830a	8830.480	12.108 ± 0.642	11.026 ± 0.452
n38832a	8832.460	$13.281 {\pm} 0.704$	11.086 ± 0.455

 $^{^{\}rm a}{\rm Continuum~fluxes~are~in~units~of~}10^{-15}~{\rm ergs~cm^{-2}~s^{-1}}$ $\rm \mathring{A}^{-1}.$

 $^{^{\}rm b}{\rm Emission}$ line fluxes are in units of $10^{-13}~{\rm ergs~cm^{-2}~s^{-1}}.$

TABLE 6
SAMPLING STATISTICS

		Sampling I	nterval (days)	_		
Subset	Number	Average	Median	F_{var}	R_{max}	Reference
Previous 1460 Å continuum dataset	69	3.3	3.9	0.201	3.027 ± 0.380	1
New UV dataset; binned by epoch	69	3.3	3.9	0.203	3.119 ± 0.163	
New UV dataset; complete sample	101	2.2	2.0	0.192	$2.856 {\pm} 0.162$	
New UV dataset; 4-day sampling period	62	2.8	3.9	0.193	2.762 ± 0.145	
New UV dataset; 2-day sampling period	40	1.3	1.7	0.140	2.043 ± 0.107	
Previous 5150 Å continuum dataset	72	3.2	2.0	0.078	1.517 ± 0.042	2
New optical dataset; binned by epoch	35	6.6	4.0	0.065	1.516 ± 0.114	
New optical dataset; complete sample	37	6.2	4.0	0.064	1.516 ± 0.114	

References.—(1) Reichert et al. 1994; (2) Stirpe et al. 1994.

 $\ensuremath{\mathsf{Note}}.\ensuremath{\mathsf{--Previously}}$ published light curves were collected from the AGN Watch website.

	Previous Results ^b		Current	Results
Line/Band	$ au_{cent}^{rest}$	τ_{peak}^{rest}	$ au_{cent}^{rest}$	τ_{peak}^{rest}
$F(\lambda 1460)$			$-0.1^{+0.3}_{-0.2}$	$0.0^{+0.2}_{-0.4}$
$F(\lambda 1835)$ $F(\lambda 5150)$	0.1^{+3}_{-3} 1.6^{+2}_{-2}	0^{+2}_{-2} 1^{+2}_{-2}	$0.0_{-0.3}^{+0.3} \\ 0.4_{-1.6}^{+3.1}$	$0.0_{-0.5}^{+0.6} \ 0.7_{-1.6}^{+1.9}$
He II $\lambda 1640 + O$ III] $\lambda 1663$	0.5^{+4}	1_{-2}^{+2}	$1.3^{+0.9}_{-0.5}$	$1.4^{+0.6}_{-1.1}$
Si IV $\lambda 1400 + O$ IV] $\lambda 1402$ Ly α	3.9_{-4}^{+4} 3.8_{-3}^{+3}	5^{+2}_{-2} 4^{+2}	$2.1_{-1.5}^{+0.9}$ $3.6_{-0.7}^{+1.1}$	$2.3_{-2.4}^{+0.8}$ $2.2_{-2.5}^{+2.5}$
$\stackrel{\circ}{\text{C}}$ IV $\lambda 1549$	5.4^{+3}_{-3}	5^{+2}_{-2}	$3.8^{+1.0}_{-0.9}$	$4.5^{+0.4}_{-2.2}$
Si III] $\lambda 1892 + C$ III] $\lambda 1909^{c}$ H β	$15.6_{-4}^{+4} \\ 7.1_{-2}^{+2}$	$\begin{array}{c} 0^{+2}_{-2} \\ 1^{+2}_{-2} \\ 1^{+2}_{-2} \\ 5^{+2}_{-2} \\ 5^{+2}_{-2} \\ 5^{+2}_{-2} \\ 9^{+2}_{-2} \\ 8^{+2}_{-2} \end{array}$	$8.5_{-2.6}^{+1.3} 10.4_{-2.3}^{+4.1}$	$10.2_{-5.3}^{+0.2} \\ 9.0_{-2.4}^{+5.1}$

^aAll time lag data are in units of days.

 $^{\rm b}$ The previous results listed here are adapted from the GEX-extracted UV data of Reichert et al. (1994) and from the optical results of Stirpe et al. (1994), both of which used the 1460 Å continuum as the driving light curve.

 cThe range of time lags we included in our analysis of Si III] $\lambda1892+$ C III] $\lambda1909$ was limited to ±16 days to avoid aliasing.